



# 2023-2025 Strategic Plan

Approved on December 8, 2022

## Our Mission is to Promote the Efficient and Sustainable Use of Water

### Our Values

- Collaboration • Innovation • Equity • Integrity • Accountability • Inclusion • Scientific Rigor

### Vision for Affordable, Sustainable Water

The Alliance for Water Efficiency (AWE) envisions communities and businesses with safe, reliable water services that are affordable and accessible for everyone and efficiently managed to protect ecosystems, reduce energy use and greenhouse gas emissions, and improve resiliency.

### About AWE

Since its founding in 2007, AWE has contributed to our *Vision for Affordable, Sustainable Water* as the only non-profit organization solely dedicated to advancing water efficiency and conservation (WEC) in North America and as the leading network for water efficiency professionals. WEC is typically the fastest and least expensive way to save water while also reducing energy use and greenhouse gas emissions, limiting stress on water resources, and saving consumers and businesses money.

AWE focuses on providing our members and partners with resources, research, and assistance that help advance their WEC goals, policy change that broadly supports WEC implementation, and encouraging the public to conserve water through tools like our *Home Water Works Water Use Calculator*<sup>1</sup>.

AWE is unique in bringing together over 530 organizational members that represent the expansive community of professionals who advance water efficiency, including municipalities, water utilities, product manufacturers, retailers, consultants, government agencies, non-profit organizations, academic institutions, and the plumbing trades. The comprehensiveness of AWE's network fosters cross-collaboration and a wholistic approach to WEC and sustainability.

In 2019, the California Water Efficiency Partnership (CalWEP)<sup>2</sup> became the first state chapter of AWE. CalWEP works within California to support innovative technologies and practices, encourage effective public policies, advance research, training and public education, and build on collaborative approaches.

Recent examples of AWE's work include:

- An outdoor water savings study to help water suppliers implement landscape transformation programs and drought restrictions.
- In order to advance water equity and affordability, AWE released a report titled, *An Assessment of Water Affordability and Conservation Potential in Detroit, Michigan* that examined how water efficiency measures could help disadvantaged households lower their water bills.

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<sup>1</sup> <https://home-water-works.org/>

<sup>2</sup> <https://www.allianceforwaterefficiency.org/about/awe-chapters>



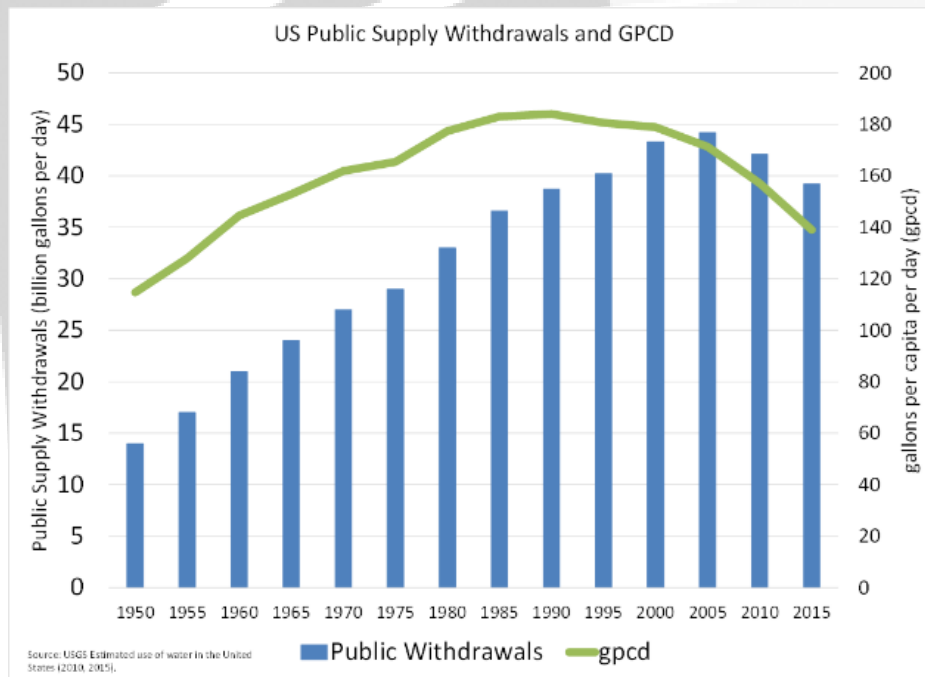
- When plumbing efficiency standards came under attack in the waning months of the Trump administration, AWE rallied our network to file comments and initiate lawsuits opposing the weakening of regulations that had effectively saved water since the early 1990s. The Biden Administration has since reversed those changes.

## About this Plan

Water efficiency professionals have worked with residents, customers, and policy makers to utilize WEC to reverse the decades-long trend of North Americans using more water - even as the population has grown - with measures like plumbing efficiency standards, water conservation programs, water rate structures that encourage efficiency and conservation, and water-saving technology innovations.

Unfortunately, it is not enough because

- Water supplies are increasingly at risk because of climate change and population growth
- Dwindling water supplies that are tapped for people and farms leave less water for healthy ecosystems
- In many communities, the costs of water services have risen rapidly in recent years compared to inflation, energy, and consumer staples.



Note: 2020 USGS withdrawal data has yet to be published, but the downward trend is expected to have continued.

The good news is that there remain many opportunities to tackle these challenges by scaling up established WEC programs, utilizing “Next Generation” innovations, ensuring that water agencies and businesses implement WEC consistently, and using sustainable long-term planning and drought planning that embraces continuous water demand management. This document lays out AWE’s plans for adapting to these new challenges and leveraging the opportunities to most-effectively advance our vision and mission.

## Water Efficiency and Conservation are Crucial for Affordable, Sustainable Water

WEC measures reduce the amount of water needed to meet basic human needs, support businesses, and grow food while limiting the need to invest in expensive water supply infrastructure projects like dams, canals, and desalinization plants. Indeed, WEC is typically the fastest and least expensive way to ensure communities have access to more affordable, sustainable water supplies.

In North America, WEC is often viewed primarily as a strategy to manage short- and long-term water supply shortages and drought, and this is undoubtedly a crucial benefit. However, WEC is important even where water supplies are abundant; it has multiple sustainability benefits that go beyond keeping the water running, just as energy efficiency does more than keep the lights on. WEC co-benefits include:

- **Mitigating climate change by reducing energy use and greenhouse gas emissions associated with heating, pumping and treating water/wastewater.** The Electric Power Research Institute estimates that treating, distributing and heating water accounts for 1.8 percent of U.S. electricity consumption. Water and wastewater treatment plants are typically one of the largest – if not THE largest – energy consumers in cities.
- **Adapting to climate change and water shortages by making communities more resilient to weather extremes.** WEC helps communities adapt to long-term and periodic droughts, which are expected to be more frequent and extreme due to climate change. WEC can create more capacity in sewer systems to manage heavy rain events that are also expected to be more frequent and extreme in many areas
- **Helping communities manage water shortages related to water quality problems.** E-coli outbreaks and PFAs contaminants are just some of the water quality problems communities may face. Water supplies may be limited as communities shift to different supplies and/or ramp up treatment strategies. Recently, treatment has been interrupted at times by supply chain problems as well.
- **Making water bills more affordable.** Water-efficient plumbing products can save an average family hundreds of dollars each year, according to the U.S. Environmental Protection Agency (U.S. EPA); especially important for disadvantaged households.
- **Reducing water infrastructure costs.** Using less water can reduce the need to build or expand drinking water and waste water systems.
- **Reducing costs for businesses and supporting corporate sustainability goals.** WEC can help companies save money and achieve corporate environmental sustainability goals that are increasingly priorities in the business and investment communities as well as with the general public.
- **Supporting the sustainable, natural functioning of water resources and their broader ecosystems.** WEC can make more water available to support healthy stream flows and lake levels for plants and animals.
- **Limiting nutrient runoff associated with over-irrigation.** A significant portion of surface water contamination can be from water running off streets, yards, and farm fields. Stronger water quality standards have led to new efforts to improve landscape and agriculture water efficiency to help limit nutrient runoff while also saving water.
- **Limiting property damage caused by leaks – a leading cause of real estate loss.** WEC strategies and technologies that detect leaks can save water and also help prevent property damage.



A variety of environmental and socio-economic changes are making WEC more important than ever:

- **Water costs are rising.** Due to aging infrastructure, new environmental protections, and other factors, the cost of water and wastewater services have increased faster than inflation and faster than most consumer staples in recent years. In many communities, the rising cost of water is on pace to equal or surpass energy expenses within a decade or less. This trend will likely create more interest in WEC as a means to reduce water bill expenses for households and businesses; this is especially important for disadvantaged households.
- **The Colorado River Basin (CRB) is in crisis.** The CRB water crisis, with Lake Mead approaching “dead pool” levels, has been a wakeup call to much of America about water supply risks created by climate change and population growth and the need to invest in WEC.
- **Climate change is causing aridification.** There is a growing recognition that hotter, dryer weather is the new normal in much of North America, and that this results in aridification in some areas, with drier soils and increased evaporation leading to a smaller portion of rain and snowfall making it to surface waters. WEC makes dwindling water supplies last longer.
- **Water-stressed urban areas are growing rapidly.** Complicating the water supply challenges is that many areas lacking resilient water supplies are growing rapidly. In particular, the southwestern U.S. and Florida.
- **Water reuse can be a compliance strategy for stronger water quality standards.** In addition to motivating efforts to limit over-irrigation and nutrient runoff (see above), stronger water quality standards for rivers, lakes and oceans are leading some wastewater agencies to consider installation of water reuse systems. That’s because, in some instances, the cost to treat for reuse isn’t significantly more than the cost to treat for effluent that complies with stronger water quality standards.
- **Corporations need and want to use water more sustainably.** As mentioned above, corporate environmental sustainability goals are increasingly priorities. Many companies are voluntarily committing to reduce their water footprints. A market for voluntary water offsets has emerged, similar to the one for voluntary carbon offsets, with companies funding WEC projects to earn the offsets.

## **AWE’s Role in Advancing the Vision**

AWE is uniquely positioned to address future water efficiency challenges thanks to the dedication and diversity of our member network, as well as the comprehensive expertise of our Board of Directors, staff, and technical advisors. As the only non-profit organization dedicated exclusively to the efficient and sustainable use of water, conservation professionals rely on AWE for tools and resources to help them establish and improve water-saving programs. Our vast online resource library, webinar archive, collection of research reports, and state-of-the-art planning applications, including the Water Conservation Tracking Tool and Cooling Tower Estimating Model, help water professionals do their jobs more effectively.



Furthermore, as climate change, population growth, and water quality concerns continue to place a strain on water supplies throughout North America, collaboration across sectors is imperative to developing effective solutions. AWE provides numerous opportunities for the staff of water utilities, regulatory agencies, plumbing manufacturers, environmental planning consultants, and more, to come together to educate one another and exchange ideas and strategies for addressing water challenges. Our bimonthly committee meetings and monthly webinars, along with our annual member meeting, virtual regional member meetings, and periodic roundtable discussions, help our members join forces.

An important role for AWE and our members is to be catalysts for the expansion and evolution of WEC programs and strategies. Some key WEC milestones to date include:

**1980s – early 1990s:** Most water conservation programs were simple public education efforts, designed to remind consumers that wasteful water behavior should be curbed.

**1992:** The federal Energy Policy Act became law and established water efficiency standards for plumbing fixtures that went into effect in the mid-1990s. Many water agencies began offering rebate and retrofit programs to accelerate the replacement of older, less-efficient fixtures that pre-dated the federal standards.

**2006:** U.S. EPA's WaterSense® program was created to encourage further market transformations by labeling plumbing and irrigation products that were at least 20 percent more efficient than standard models and that met performance standards.

**2000 – present:** Cities and states increasingly adopted plumbing codes and standards that go beyond federal standards, including requirements in thirteen states today to sell products that meet WaterSense specifications.

**2010 – present:** Municipal water agencies, businesses, and homeowners have focused more attention on WEC strategies to reduce outdoor water use, which can account for 50 percent or more of urban water use and create water supply stress when hot, dry weather decreases water availability at the same time demand for outdoor watering increases. During this same timeframe, we also saw significant advancements in the efficiency of agriculture irrigation, which can account for 70 percent or more of total water use in many states.

As noted above, these and other WEC efforts have reduced per person and total water use in North America, even as populations increased. But ensuring sustainable, affordable water amidst climate change, aging infrastructure, and rising water costs requires further investment and innovation in WEC.

Today, WEC programs go beyond plumbing standards and rebates to be more diverse and expansive than ever before, including:

- Water loss detection in utility water distribution systems.
- Engaging water utility customers with smart meter technologies and data that can detect leaks in homes and other buildings and encourage water-saving behaviors and technology adoption.



- Smart irrigation controllers and systems for urban landscapes and farms. A variety of other technologies with data assets that can drive behavior change that enhances water efficiency and resiliency.
- On-site and large-scale water reuse and recycling systems.
- Aquifer storage of wastewater and stormwater that is treated and reused.
- Direct installation of efficient plumbing fixtures and appliances rather than relying on consumers to do the installations.
- Landscape transformation programs that replace high water use landscapes with water-efficient ones.
- Water and energy utilities partnering to fund and implement water and energy efficiency programs.
- Water utilities and other government agencies partnering to implement “stacked benefit” programs, e.g., reducing landscape watering and nutrient runoff into surface waters.

AWE will continue to be a catalyst for WEC expansion and innovation by helping cities, local water agencies, businesses, and the public leverage the full suite of WEC strategies while also developing new ones. We will focus on actionable, deployable research, tools, education and training that helps WEC practitioners in the field, with a focus on cutting-edge strategies with the greatest water-savings potential.

Furthermore, another AWE priority is advocating for systemic policy change that is needed to help water agencies, homeowners, and businesses have the resources and policy signals to invest heavily in WEC and to make water efficient products and practices the norm, rather than something requiring a special effort.

The potential for policy changes that drive large-scale expansion of WEC is higher than ever. One can see parallels to energy efficiency, which before the 1970s and 80s garnered little attention beyond a relatively small number of cities and utilities that served as trailblazers, similar to the situation today with WEC. The motivation to invest in energy efficiency was driven by concerns about energy supplies, rising energy prices, and the environmental impacts associated with energy use. In the 1990s and 2000s, states and the federal government began to ramp up funding and incentives, and energy efficiency grew rapidly.

WEC hasn't risen to a similar level, but that is likely to change as water supply shortages have become more widespread and severe due to climate change and population growth, water prices have increased significantly, and the public is more aware that using water inefficiently is connected to climate change and impaired waterways.

The onus to advance WEC currently rests primarily at the local level – a product of the federal government shifting nearly the entire cost of water services to local authorities more than 30 years ago. Much progress has been made within this paradigm, including some impressive examples from local water agencies, businesses, and farmers. However, in order to realize WEC's full potential, state and federal policy change and funding are needed to support local water agencies and water users. AWE will continue to be a leading advocate for such changes.



## Goals

### 1. Provide foundational support for AWE members and the water efficiency community.

- Maintain definitive online resources for high-quality water efficiency information, research, and programs; ensure information across all platforms is up to date, and make modifications to improve search and navigability.
- Provide high-quality technical assistance to our membership.
- Convene forums for members, stakeholders, and AWE staff to listen to and learn from each other, including an annual in-person symposium and virtual regional member meetings, roundtables, webinars, and other peer-to-peer forums.
- Provide research and tools on water efficiency issues of critical importance; engage members in development and dissemination.
  - Focus on actionable/deployable research and tools that help water efficiency and conservation (WEC) practitioners in the field, with a focus on cutting edge strategies with the greatest water-savings potential.
  - Offer resources appropriate for new and mature WEC programs and for the unique climate, economy, demographics, and land uses of AWE's members and stakeholders.
  - Ensure AWE's research, tools and expertise advance innovative WEC strategies that will likely become more prominent components of WEC programs.

### Water Efficiency is More than Toilet Rebates

- Water reuse
  - Water loss control in distribution systems
  - Leak detection in buildings
  - Peak demand management
  - Smart technologies and data that drive behavior change
  - Collaboration between the energy and water efficiency sectors, including joint retrofit programs
  - Corporate water sustainability initiatives
  - Landscape/irrigation programs
  - Commercial/industrial/institutional programs
  - Rainwater capture and use
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- Increase recognition of our members' accomplishments and enhance communications with leadership to identify opportunities for internal collaboration and educate them about WEC and AWE's role.
  - Explore creation of a recognition program for AWE corporate members and other businesses that commit to and verify water savings.
  - Explore the creation of new WEC training and/or certification programs.
  - Develop partnerships with academia, non-profits, professional associations, businesses, energy utilities, and others to advance these objectives.

**2. Contribute to systemic policy change that assists, incentivizes, and requires water agencies, businesses, homeowners, and farms to significantly increase investments in water efficiency, conservation and demand reduction.**

- Advocate for additional federal WEC funding and creation of an interagency WEC Working Group or Task Force to provide federal direction and coordination.
- Advocate for requiring that WEC is part of long-term water supply planning.
- Advocate for state and provincial funding for WEC programs and state policies that advance WEC, including state water loss control programs, plumbing efficiency standards, water conservation planning requirements, rules that support water reuse, coordination between land use and water planning, requiring rate structures that encourage WEC and keep costs of water for basic health and safety affordable including protections for the most vulnerable households, and encouraging collaboration between energy and water utilities.
- Continue to support AWE members' work on local policy change, including research and resources on best practices and the effectiveness of local WEC policies and regulations.
- Amongst policy makers, water sector professionals, and other key stakeholders, re-position water efficiency with a broader, multi-benefit framing that is less dependent on water shortages and resonates where water supplies are considered reliable.
  - Leverage the water-energy-climate nexus and interest in climate change adaptation and mitigation.
  - Highlight the rising costs of water and how WEC can reduce customer expenses, just as energy efficiency does for energy services.
  - Increase awareness of how water inefficiency can harm rivers and lakes.
- Explore the potential for water utility de-coupling to increase WEC as it has with energy efficiency for energy utilities. (De-coupling minimizes the disincentive to sell less energy or water by ensuring utilities are paid enough to cover expenses even if sales decline.)
- Explore the potential to leverage water markets to advance WEC, especially in rural and agricultural areas.
  - Markets can help find and eliminate inefficiencies that would otherwise remain.
  - Ensure water savings are real and verifiable.
- Utilize AWE's Board Policy Committee to develop new policies and present them for Board of Directors approval.
- Develop partnerships with non-profits, professional associations, businesses, and others to advance these objectives.

**3. Support market transformations that help make water-efficient products, services, and practices the norm, rather than something requiring a special effort.**

- Advocate for state and province adoption of WaterSense specifications.
- Advocate for federal funding to support local and state adoption of WEC programs that accelerate development and deployment of new products and services and that supports adoption of local and state WEC codes and standards.
- Advocate for local and state/provincial regulations that allow and encourage on-site water reuse.
- Support U.S. EPA's WaterSense program, including collaboration on education and training, promotion of product availability, and continued advocacy for program funding.



- Implement research and programs that advance market transformations, including verification of water savings.
- Engage with market transformation partners such as manufacturers and retailers.

#### **4. Increase municipal and corporate water efficiency and conservation implementation beyond the southwestern U.S., including Canada, with a focus on multi-benefits.**

- Amongst policy makers, water sector professionals, businesses, and other key stakeholders beyond the southwestern U.S., re-position water efficiency with a broader, multi-benefit framing that is less dependent on water shortages.
  - Leverage the water-energy-climate nexus and interest in climate change adaptation and mitigation.
  - Highlight the rising costs of water and how WEC can reduce customer expenses, just as energy efficiency does for energy services.
  - Increase awareness of how water inefficiency can harm rivers and lakes.
  - Highlight that WEC programs are typically popular with customers and improve overall customer relations.
- Enhance membership recruitment and attendance at regional meetings beyond the southwestern U.S.
- Working with stakeholders, identify research projects, tools, and/or forums focused on the benefits of WEC in communities with water supply reliability.

#### **5. AWE and its member organizations advance equity and affordability in the water sector**

- Implement AWE's Diversity, Equity, Inclusion, and Justice (DEIJ) Policy Statement<sup>3</sup> and action items.
- Promote WEC as a strategy to improve water equity and affordability
  - Implement AWE's Efficient and Affordable Water Campaign in additional cities.
  - Seek funding and opportunities for research focused on disadvantaged households and communities, with a particular focus on multi-family housing.
- Ensure that water agencies assess opportunities to lower the economic burden of water for disadvantaged customers through water efficiency programs.
- Advocate for state and federal funding to support water financial assistance programs and WEC programs for disadvantaged households.
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- Educate water agencies on financial assistance strategies, including discounted and tiered rates that keep costs lower for water usage necessary for basic human needs.

#### **6. Build organizational capacity to meet strategic planning goals.**

- Expand expertise among the Board of Directors, staff, and advisors to encompass the full suite of current and emerging WEC strategies and programs, including agriculture, water loss, and water reuse.

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<sup>3</sup> <https://www.allianceforwaterefficiency.org/about/diversity-equity-inclusion-and-justice>

- Explore the creation of new, mission-aligned programs that advance AWE's mission and generate revenues to cover related expenses, such as water offset credits and verification, training/certification, and corporate recognition.
- Grow attendance and satisfaction with AWE's new annual symposium; increase net revenues over time to supplement membership dues.
- Implement AWE's DEIJ Policy Statement and its action steps; continue to update/improve DEIJ plans.
- Enhance efforts to recruit and retain members, with a focus on large water agencies and corporations.
- Drive new funding from members, foundations, and businesses for research, events, and programs.
- Enhance staff capacity to better meet strategic planning goals.

